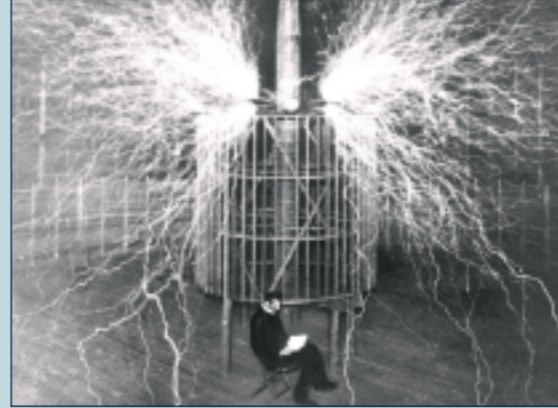


[SCIENCE]

A sartorially elegant bon vivant of Serbian birth, Nikola Tesla was widely celebrated for his inventions that used alternating current electricity. Today, a fight is looming over the ghostly remains of Tesla's laboratory site

BY WILLIAM J. BROAD
NY TIMES NEWS SERVICE, NEW YORK



Far left: A view of Nikola Tesla's lab in Shoreham, New York.
Left: Nikola Tesla in a multiple-exposure photo, taken in 1899, as a Tesla coil discharged millions of volts in his laboratory in Colorado Springs, Colorado.
Below: Nikola Tesla circa 1907.

PHOTOS: THE NY TIMES NEWS SERVICE

old laboratory "would be a terrible thing for the US and the world. It's a piece of history."

Tesla, who lived from 1856 to 1943, made bitter enemies who dismissed some of his claims as exaggerated, helping tarnish his reputation in his lifetime. He was part recluse, part showman. He issued publicity photos (actually double exposures) showing him reading quietly in his laboratory amid deadly flashes.

Today, Tesla's work tends to be poorly known among scientists, though some call him an intuitive genius far ahead of his peers.

Tesla seized on the colossal project at the age of 44 while living in New York City. An impeccably dressed bon vivant of Serbian birth, he was widely celebrated for his inventions of motors and power distribution systems that used the form of electricity known as alternating current, which beat out direct current (and Thomas Edison) to electrify the world.

His patents made him a rich man, at least for a while. He lived at the Waldorf-Astoria and loved to hobnob with the famous at Delmonico's and the Players Club.

Around 1900, as Tesla planned what would become Wardenclyffe, inventors around the world were racing for what was considered the next big thing — wireless communication. His own plan was to turn alternating current into electromagnetic waves that flashed from antennas to distant receivers. This is essentially what radio transmission is. The scale of his vision was gargantuan, however, eclipsing that of any rival.

Investors, given Tesla's electrical achievements, paid heed. The biggest was J. Pierpont Morgan, a top financier. He sank US\$150,000 (today more than US\$3 million) into Tesla's global wireless venture.

Work on the prototype tower began in mid-1901 on the North Shore of Long Island at a site Tesla named after a patron and the nearby cliffs.

"The proposed plant at Wardenclyffe," the *New York Times* reported, "will be the first of a number that the electrician proposes to establish in this and other countries."

The shock wave hit Dec. 12, 1901. That day, Marconi succeeded in sending radio signals across the Atlantic, crushing Tesla's hopes for pioneering glory.

Still, Wardenclyffe grew, with guards under strict orders to keep visitors away. The wooden tower rose 57m over a wide shaft that descended 37m to deeply anchor the antenna. Villagers told the *Times* that the ground beneath the tower was "honeycombed with subterranean passages."

The nearby laboratory of red brick, with arched windows and a tall chimney, held tools, generators, a machine shop, electrical transformers, glass-blowing equipment, a library and an office.

But Morgan was disenchanted. He refused Tesla's request for more money.

Desperate, the inventor pulled out what he considered his ace. The towers would transmit not only information around the globe, he wrote the financier in July 1903, but also electric power.

"I should not feel disposed," Morgan replied coolly, "to make any further advances."

Margaret Cheney, a Tesla biographer, observed that Tesla had seriously misjudged his wealthy patron, a man deeply committed to the profit motive. "The prospect of beaming electricity to penniless Zulus or Pygmies," she wrote, must have left the financier less than enthusiastic.

It was then that Tesla, reeling, fired up the tower for the first and last time. He eventually sold Wardenclyffe to satisfy US\$20,000 (today about US\$400,000) in bills at the Waldorf. In 1917, the new owners had the giant tower blown up and sold for scrap.

Today, Tesla's exact plan for the site remains a mystery even as scientists agree on the impracticality of his overall vision: The tower could have succeeded in broadcasting information, but not power.

IN 1901, Nikola Tesla began work on a global system of giant towers meant to relay through the air not only news, stock reports and even pictures but also, unbeknown to investors such as J. Pierpont Morgan, free electricity for one and all.

It was the inventor's biggest project, and his most audacious.

The first tower rose on rural Long Island and, by 1903, stood more than 18 stories tall. One midsummer night, it emitted a dull rumble and proceeded to hurl bolts of electricity into the sky. The blinding flashes, the *New York Sun* reported, "seemed to shoot off into the darkness on some mysterious errand."

But the system failed for want of money, and at least partly for scientific viability. Tesla never finished his prototype tower and was forced to abandon its adjoining laboratory.

Today, a fight is looming over the ghostly remains of that site, called Wardenclyffe — what Tesla authorities call the only surviving workplace of the eccentric genius who dreamed countless big dreams while pioneering wireless communication and alternating current. The disagreement began recently after the property went up for sale in Shoreham, New York.

A science group on Long Island wants to turn the 6.5-hectare site into a Tesla museum and education center, and hopes to get the land donated to that end. But the owner, the Agfa Corp, says it must sell the property to raise money in hard economic times. The company's real estate broker says the land, listed at US\$1.6 million, can "be delivered fully cleared and level," a statement that has thrown the preservationists into action.

The ruins of Wardenclyffe include the tower's foundation and the large brick laboratory, designed by Tesla's friend Stanford White, the celebrated architect.

"It's hugely important to protect this site," said Marc Seifer, author of *Wizard*, a Tesla biography. "He's an icon. He stands for what humans are supposed to do — honor nature while using high technology to harness its powers."

Recently, New York state echoed that judgment. The commissioner of historic preservation wrote Seifer on behalf of Governor David Paterson to back Wardenclyffe's preservation and listing in the National Register of Historic Places.

On Long Island, Tesla enthusiasts vow to obtain the land one way or another, saying that saving a symbol of Tesla's accomplishments would help restore the visionary to his rightful place as an architect of the modern age.

"A lot of his work was way ahead of his time," said Jane Alcorn, president of the Tesla Science Center, a private group in Shoreham that is seeking to acquire Wardenclyffe.

Ljubo Vujovic, president of the Tesla Memorial Society of New York, said destroying the

A battle to preserve a visionary's bold failure

For Mother's Day, a piece of Taiwan

Treat your mom to gifts with local flavor (some literally) on May 10

BY CATHERINE SHU
STAFF REPORTER



It's that time of the year again, when many of us start feeling a creeping sense of dread on suddenly remembering that Mother's Day is fast approaching. If you haven't started shopping yet, you have three days until May 10. There are plenty of gift options with a Taiwanese flavor that are quick and easy to buy, but will nonetheless make up for the years of backbreaking, heartrending labor that it took to raise you.

If your mom has a sweet tooth, treat her to a taste of Taiwan — literally. I-Lan Cake (宜蘭餅) sells traditional pastries with a twist. Try the kumquat biscuit, which is a variation on the pineapple biscuit (鳳梨酥), a national teatime favorite. Each one has an entire candied kumquat, which is tarter and chewier than pineapple paste, nestled in it (NT\$500 for a gift box). Health-conscious moms will appreciate I-Lan Cake's Yi-lan biscuit, which are just 0.1cm thick and advertised as "the thinnest biscuit in the world." The baked treats come in a cornucopia of savory and sweet flavors, including maple syrup, coffee, green onion and cheese. The cookies literally melt in your mouth and are a low calorie alternative to fried potato chips (NT\$35 per pack, or NT\$350 for a gift bag of 10 packs). I-Lan Cake's Taipei store is at B2, 300, Zhongxiao E Rd Sec 3, Taipei City (台北市忠孝東路三段300號B2樓), tel: (02) 8772-7535. For more information, check www.i-cake.com.tw.

Yuan Soap (阿原肥皂) specializes in bath products for sensitive skin made from natural ingredients and water from Taiwan's springs. Soaps with classic ingredients like moisturizing oatmeal or astringent tea tree oil are available, but

for something more unusual, try ones made with energizing mulberry and chrysanthemum (桑菊花), soothing wild mugwort (野生艾草), relaxing juniper (檜木) or moisturizing green bean and Job's tears (綠豆薏仁). Individual soaps aren't cheap — most are NT\$250 or NT\$300 per bar — but if you really want to spoil your mom, buy her a gift box of four of Taiwan Soap's best sellers for NT\$1,100 or NT\$1,190 for a box with soaps that have skin nourishing properties. Go to www.taiwansoap.com.tw for locations.

If your mom likes to unwind over a nice cuppa, head over to Bee Coffee (蜂蜜咖啡) at 87, Fuxing S Rd Sec 1, Taipei City (台北市復興南路1段87號), tel: (02) 2773-2072. Crowded and lit with fluorescent lamps, the combination store and drink stand doesn't seem like much from the outside, but inside there's a huge variety of loose tea leaves sold by weight for reasonable prices. Try the rosebud tea (粉玫瑰朵), which looks like potpourri and is supposed to help alleviate muscle aches and make your mom even more beautiful than she already is (NT\$100 for 50g or NT\$400 for 200g). Sets of five pairs of bone china cups or saucers are NT\$950 to NT\$3,500 per set. See www.beecoffee.com.tw for more information.

Liuligongfang (琉璃工房) is one of Taiwan's top artisan glassmakers. Founded in 1987 by actress Loretta Young (楊惠嫻), the gallery combines traditional Chinese glassmaking with a modern aesthetic to make colorful art pieces and jewelry. Many of Liuligongfang's handmade glass art works, which are crafted using the lost-wax casting method, go for tens of thousands of NT dollars, but you can



The way to mom's heart.

PHOTOS: TSAO MING-CHENG, TAIPEI TIMES

buy a paperweight for about NT\$7,900 or heavy, richly detailed pendants on a silky macrame cord for less than NT\$3,000. Liuligongfang has galleries throughout Taiwan; check www.liuli.com for your nearest location.